

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.

Page 1 of 17

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE TITLE PAGES:

Item [56] References Cited, in OTHER PUBLICATIONS:

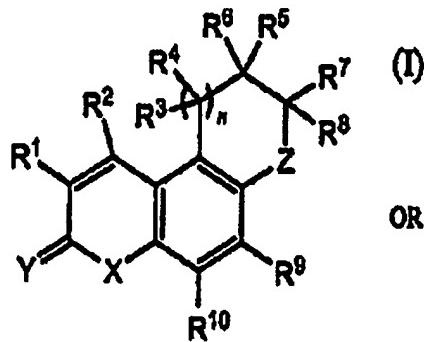
in Yudin, please replace "Geterotsikicheskikh" with --Geterotsiklicheskikh--
in the first Yamashkin et al., please replace "Chemistry.of" with --Chemistry of--
in Edwards, J., et al., please replace "(1999)" with --(1998)--
in Boyer, M., please replace

"<http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm>(accessed on Jan. 28, 2005." with --<http://www.australianprescriber.com/magazines/vol19no1/ap19-1-11.htm> (accessed on Jan. 28, 2005).--

in Castillo, P., please replace "o-dihydroxyaromatic" with --o-dihydroxyaromatic--

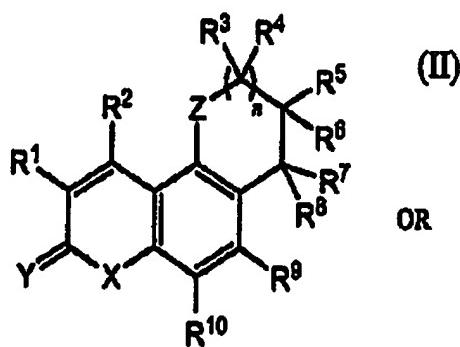
IN THE SPECIFICATION:

In column 2, beginning at line 7, please replace formulas I-VIII with:



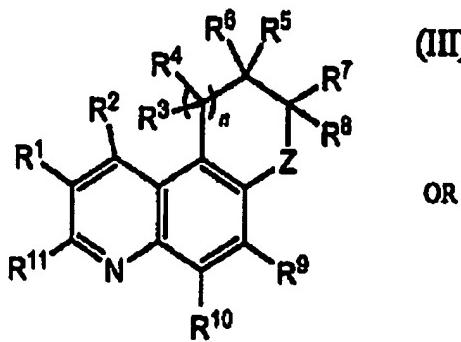
(I)

OR



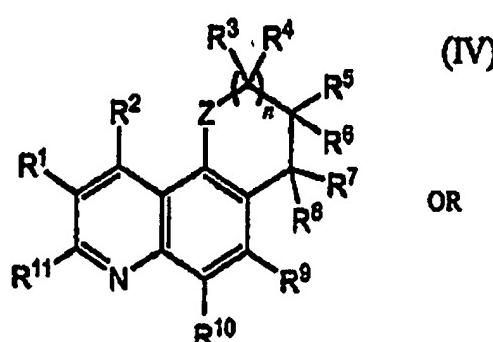
(II)

OR



(III)

OR



(IV)

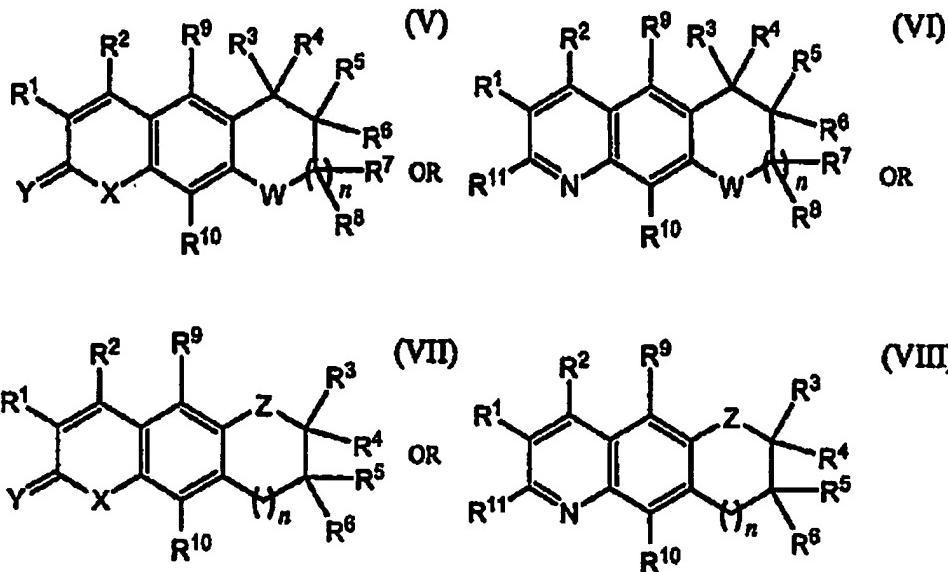
OR

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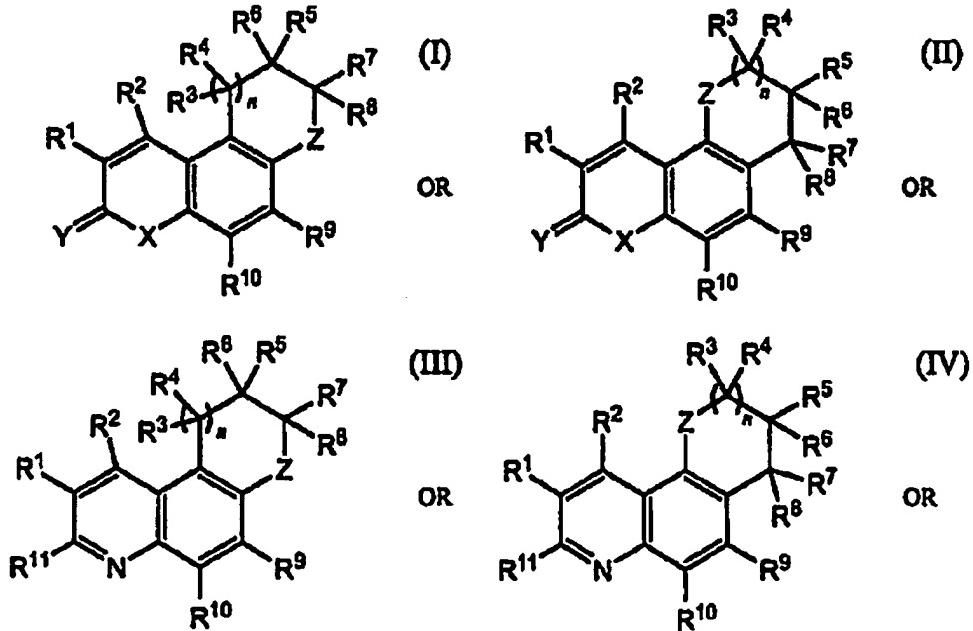
PATENT NO. : 7,026,484 B2
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



in column 7, beginning at line 15, please replace formulas I-VIII with:

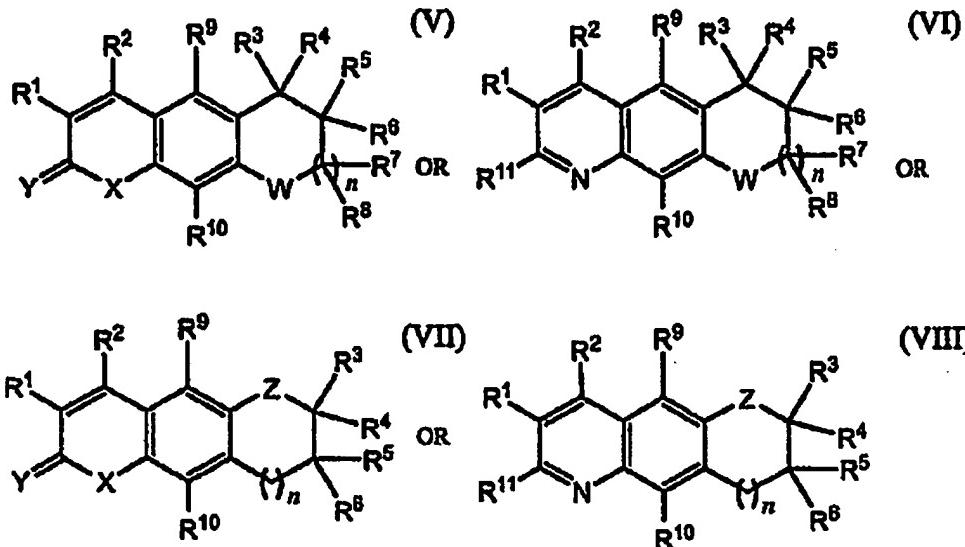


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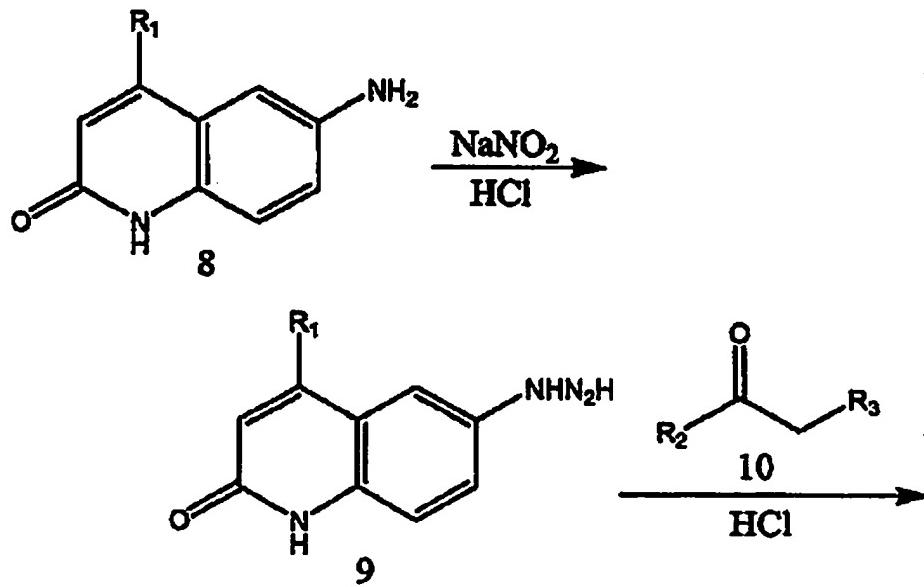
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:



in column 24, lines 53-67, please replace the structures in Scheme II with:



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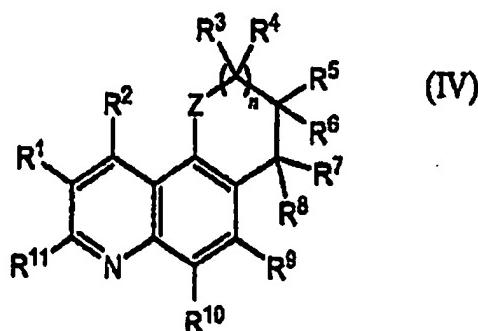
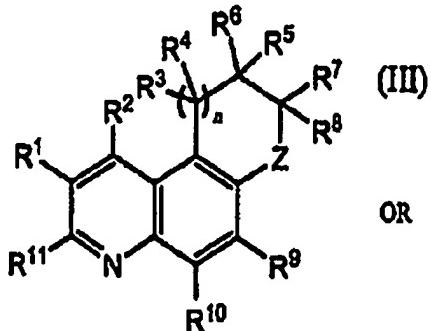
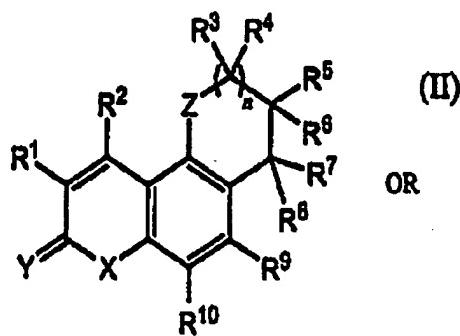
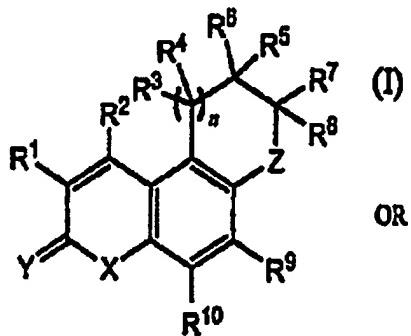
in column 57, lines 4-6, please replace
“(Compound 177, Structure 26 of Scheme IV, where R₂=methyl, R₃=2-hydroxyethyl”
with --(Compound 177, Structure 26 of Scheme IV, where R₂=methyl, R₃=2-hydroxyethyl--

in column 70, line 21, please replace “chloronation” with --chlorination--

IN THE CLAIMS:

Please replace Claims 1, 4, 26, 28, 29, 30, 32, 33, 34, 42, 43, 50, 52, 53, and 60 with the following Claims:

1. A compound of the formula:



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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹², substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CF₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl, and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³, and SR¹⁴;

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R^{12} and R^{13} each independently is selected from the group of hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R^{15} and R^{16} each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, wherin the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is seleted from among O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

4. A compound according to claim 1, wherein R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₄ alkyl, C₁-C₄ haloalkyl, C₁-C₄ heteroalkyl, C₂-C₄ alkenyl and C₂-C₄ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted.

26. A compound according to claim 1, wherein:

R⁶ and R⁸ each indepentently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R⁶ and R⁸ taken together form a three to eight membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

28. A compound according to claim 1, wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, CF₃, CF₂Cl, CF₂H, CFH₂, substituted C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein haloalkyl and heteroalkyl groups are optionally substituted; and

R³ and R⁴ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.

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29. A compound according to claim 28, wherein
 R^5 through R^8 each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or
 R^6 and R^8 taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.
30. A compound according to claim 29, wherein:
 R^9 and R^{10} each independently is selected from among hydrogen, F, Cl, Br, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;
 R^{12} is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted; and
 R^{14} is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted.
32. A compound according to claim 1, wherein said compound is selected from among:
6-Methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-Isopropyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-Allyl-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-(4-Methoxyphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8-tetrahydrocyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
4-Trifluoromethyl-5,6,7,8,9,10-hexahydrocycloheptano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7H-pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-furanyl methyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;
(\pm)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(3-thiophenemethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1H)-one;

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Col. 82, Line 13 should read

(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2-methylpropyl)-4-trifluoromethylcyclopentano
[g]-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoro-ethyl)-4-
trifluoromethylcyclopentano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-cyclopropylmethyl-4-
trifluoromethylcyclopentano[g]-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2-dimethoxyethyl)-4-trifluoromethylcyclo-
pentano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-
cyclohexano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,8,9,9a(*cis*),10-Octahydro-10-(2,2,2-trifluoroethyl)-4-
trifluoromethylcycloheptano[g]pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-
pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-
pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-nitrophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-dimethylaminophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(3-trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-phenyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-3,2-f]-
quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-4-trifluoromethyl-7*H*-pyrrolo
[3,2-f]-quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-(4-methoxyphenyl)-6-methyl-7-(2,2-dimethoxyethyl)-4-
trifluoromethyl-7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;
(±)-5,6-*cis*-Dihydro-5-isopropyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-
7*H*-pyrrolo[3,2-f]quinolin-2(1*H*)-one;

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(±)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5-(2-ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
8-Trifluoroethyl-4-trifluoromethyl-6,8-dihydrocyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
9-Trifluoroethyl-trifluoromethyl-9*H*-benzo[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(3-Trifluoromethylphenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(4-Fluorophenyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-(2-Ethoxycarbonylethyl)-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-(1-hydroxyethyl)-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Methyl-6-acetyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Formyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Acetyloxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
2-Acetyloxy-5-hydroxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo(3,2-*f*)quinoline;

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6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)one;
5-Ethoxymethyl-6-ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]-
quinolin-2(1*H*)-one;
(+)-6-(1-Methoxyethyl)-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo
[3,2-*f*]quinolin-2(1*H*)-one;
7-Allyl-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
6-Ethyl-7-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
7-(3-Trifluoromethylphenyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2
(1*H*)-one;
7-(2-Hydroxyethyl)-6-methyl-4-trifluoromethyl-5*H*-pyrrolo[2,3-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethyl-
cyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-
trifluoromethylcyclopentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-7-ethyl-6-hydroxymethyl-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2
(1*H*)-one;
5-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethylpyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Formyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]
quinolin-2(1*H*)-one; and
5,6-Dimethyl-7-(2,2-difluorovinyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-
2(1*H*)-one.

Col. 84, line 1 should read

33. A compound according to claim 1, wherein said compound is selected from the group consisting of:

(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-
trifluoromethylcyclopentano-[g]-pyrrolo-[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-ethyl-4-trifluoromethylcyclopentano-[g]pyrrolo
[3,2-*f*]quinolin-2(1*H*)-one;
(±)-5,6-Dihydro-5,6-*cis*-dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo
[3,2-*f*]-quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-propyl-4-trifluoromethylcyclopentano-[g]pyrrolo-
[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-chlorodifluoroethyl)-4-trifluoromethylcyclo-
pentano-[g]-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(±)-4c,5,6,7,7a(*cis*),8-Hexahydro-8 cyclopropylmethyl-4-trifluoromethylcyclopentano
[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
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INVENTOR(S) : Lin Zhi et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

(\pm)4c,5,6,7,8,8a(*cis*)-Hexahydro-9-(2,2,2-trifluoroethyl)-4-trifluoromethyl-9*H*-cyclohexano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-*cis*-Dihydro-6-ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-*cis*-Dihydro-5-butyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-Dihydro-5-ethyl-6-propyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(\pm)-5,6-*cis*-Dihydro-5-methyl-6-ethyl-7-(2,2,2-trifluoroethyl)-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6-Dimethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-5-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5-Ethyl-6-methyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
5,6,7,8-Tetrahydro-8-trifluoroethyl-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
6-Ethyl-7-(2,2,2-trifluoroethyl)-4-trifluoromethyl-7*H*-pyrrolo[3,2-*f*]quinolin-2(1*H*)-one;
(+)-4c,5,6,7,7a(*cis*)-8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one; and
(-)-4c,5,6,7,7a(*cis*),8-Hexahydro-8-(2,2,2-trifluoroethyl)-4-trifluoromethylcyclopentano-[g]pyrrolo[3,2-*f*]quinolin-2(1*H*)-one.

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

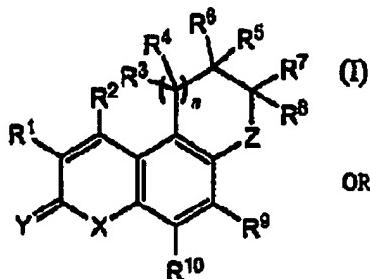
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DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.

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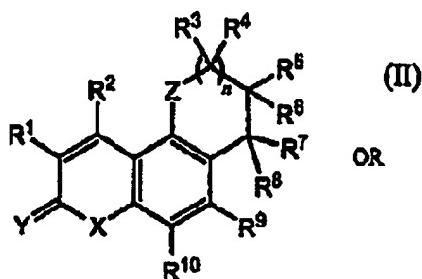
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 84, line 64 should read

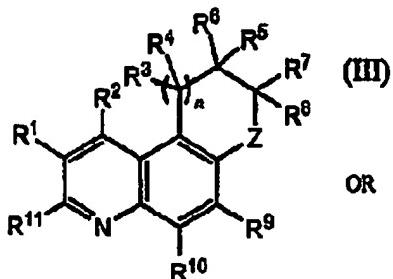
34. A pharmaceutical composition, comprising:
a pharmaceutically acceptable carrier; and
a compound of formula:



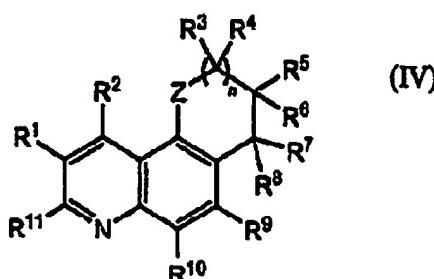
(I)
OR



(II)
OR



(III)
OR



(IV)

wherein:

R¹ is selected from among hydrogen, F, Cl, Br, I, NO₂, OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R² is selected from among F, Cl, Br, I, CF₃, CHF₂, CH₂F, CH₂Cl, CN, CF₂OR¹², CH₂OR¹², OR¹², SR¹², SOR¹², SO₂R¹², NR¹²R¹³, substituted C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl and C₂-C₈ alkynyl, wherein the haloalkyl, heteroalkyl, alkenyl and alkynyl groups are optionally substituted;

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R³ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁴ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁵ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁶ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen, F, Cl, Br, I, OR¹², NR¹²R¹³, SR¹², SOR¹², SO₂R¹², C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkynyl, C₂-C₈ alkenyl, aryl, heteroaryl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl, alkynyl, alkenyl, aryl, heteroaryl and arylalkyl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted; or

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among hydrogen, F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R^{14} is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N{R¹⁴};

Y is selected from among O, S, N{R¹²} and N{OR¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

42. A pharmaceutical composition according to claim 34, wherein R¹¹ is selected from among F, Cl, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴.

43. A pharmaceutical composition according to claim 42, wherein R¹¹ is selected from among F, Cl, OR¹⁴, SR¹⁴, NR¹⁴R¹³.

50. A pharmaceutical composition according to claim 49, wherein:

R⁵ through R⁸ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁶ and R⁸ taken together form a four to six membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted.

52. A pharmaceutical composition according to claim 51 wherein Y is O or S.

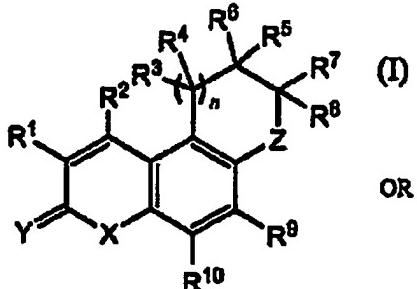
UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,026,484 B2
APPLICATION NO. : 10/080926
DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.

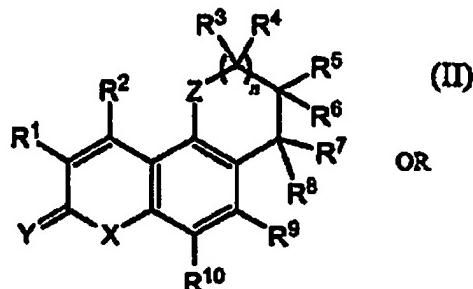
Page 15 of 17

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

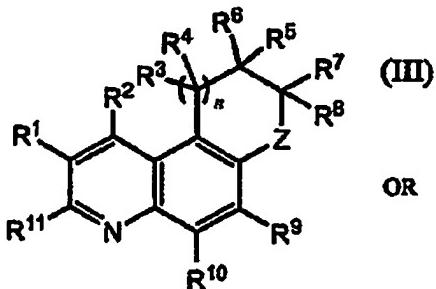
53. A compound of formula:



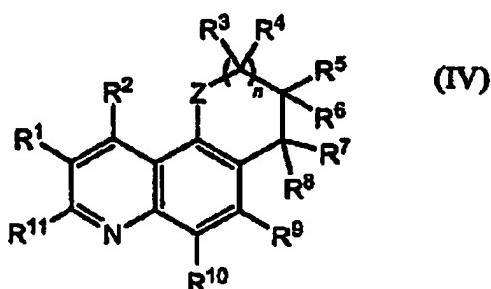
(I)
OR



(II)
OR



(III)
OR



(IV)

wherein:

R^1 is selected from among hydrogen, F, Cl, Br, I, NO_2 , OR^{12} , SR^{12} , SOR^{12} , SO_2R^{12} , $NR^{12}R^{12}$, C_1-C_8 alkyl, C_1-C_8 haloalkyl and C_1-C_8 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^2 is selected from among F, Cl, Br, CF_3 , CHF_2 , CH_2F , CF_2Cl , CF_2OR^{12} , CH_2OR^{12} , OR^{12} , SR^{12} , SOR^{12} , SO_2R^{12} , $NR^{12}R^{13}$, substituted C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the haloalkyl, and heteroalkyl groups are optionally substituted;

R^3 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^4 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R^5 is selected from among hydrogen, C_1-C_6 alkyl, C_1-C_6 haloalkyl and C_1-C_6 heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

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PATENT NO. : 7,026,484 B2
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

R⁶ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted;

R⁷ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

R⁸ is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, heteroaryl and aryl groups are optionally substituted; or

R³ and R⁵ taken together form a bond; or

R⁵ and R⁷ taken together form a bond; or

R⁴ and R⁶ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R⁶ and R⁸ taken together form a three- to eight-membered saturated or unsaturated carbocyclic ring, wherein the carbocyclic ring is optionally substituted;

R⁹ and R¹⁰ each independently is selected from among hydrogen, F, Cl, Br, I, CN, OR¹², NR¹²R¹³, C_m(R¹²)_{2m}OR¹³, SR¹², SOR¹², SO₂R¹², NR¹²C(O)R¹³, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl and arylalkyl, wherein the alkyl, haloalkyl, heteroalkyl and arylalkyl groups are optionally substituted;

R¹¹ is selected from among F, Br, Cl, I, CN, OR¹⁴, NR¹⁴R¹³ and SR¹⁴;

R¹² and R¹³ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, C₂-C₈ alkenyl, C₂-C₈ alkynyl, heteroaryl and aryl, wherein the alkyl, haloalkyl, heteroalkyl, alkenyl, alkynyl, heteroaryl and aryl groups are optionally substituted;

R¹⁴ is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl, C₁-C₈ heteroalkyl, aryl, heteroaryl, C(O)R¹⁵, CO₂R¹⁵ and C(O)NR¹⁵R¹⁶, wherein the alkyl, haloalkyl, heteroalkyl, aryl and heteroaryl groups are optionally substituted;

R¹⁵ and R¹⁶ each independently is selected from among hydrogen, C₁-C₈ alkyl, C₁-C₈ haloalkyl and C₁-C₈ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted;

W is O or S;

X is N {R¹⁴};

Y is selected from among O, S, N{R¹²} and NO{R¹²};

Z is N{R¹²};

n is 0; and

m is 0 or 1;

or a pharmaceutically acceptable salt thereof.

UNITED STATES PATENT AND TRADEMARK OFFICE
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PATENT NO. : 7,026,484 B2
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DATED : April 11, 2006
INVENTOR(S) : Lin Zhi et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

60. A compound according to claim 34, wherein:

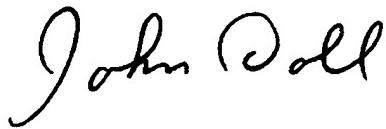
R⁵ and R⁷ each independently is selected from among hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl and C₁-C₆ heteroalkyl, wherein the alkyl, haloalkyl and heteroalkyl groups are optionally substituted; or

R⁵ and R⁷ taken together form a bond.

This certificate supersedes all previously issued the Certificates of Correction.

Signed and Sealed this

Thirtieth Day of June, 2009



JOHN DOLL
Acting Director of the United States Patent and Trademark Office